

**DEPARTMENT of ENVIRONMENTAL SERVICES**

**Water Division - Watershed Management Bureau**

**LAKE TROPHIC DATA**

**MORPHOMETRIC:**

<b>Lake:</b>	GILE POND	<b>Lake Area (ha):</b>	22.22
<b>Town:</b>	SUTTON	<b>Maximum Depth (m):</b>	3.1
<b>County:</b>	MERRIMACK	<b>Mean Depth (m):</b>	1.8
<b>River Basin:</b>	MERRIMACK	<b>Volume (m<sup>3</sup>):</b>	400500
<b>Latitude:</b>	43°43'21" N	<b>Relative depth:</b>	0.6
<b>Longitude:</b>	71°71'55" W	<b>Shore Configuration:</b>	1.14
<b>Elevation (ft) :</b>	902	<b>Areal water load (m/yr):</b>	3.6
<b>Shore length (m):</b>	1900	<b>Flushing Rate (yr<sup>-1</sup>):</b>	2
<b>% Watershed Ponded:</b>	0	<b>P retention coeff.:</b>	0.72
<b>Watershed Area (ha)</b>	134.7	<b>Lake Type</b>	natural

**BIOLOGICAL:**

**13-Jan-04**

**16-Jun-03**

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 85%	UROGLENOPSIS 75%
	#2		DINOBRYON 10%
	#3		MALLOMONAS 7%
CHLOROPHYLL-A (ug/L)			3.11
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 31%	NAUPLIUS LARVA 28%
	#2	POLYARTHRA 26%	KERATELLA 20%
	#3	BOSMINA 18%	POLYARTHRA 17%
ROTIFERS/LITER		159	235
MICROCRUSTACEA/LITER		99	188
ZOOPLANKTON ABUNDANCE (#/L)		268	469
VASCULAR PLANT ABUNDANCE			Common/Abundant
SECCHI DISK TRANSPARENCY (m)			2.7 VOB
BOTTOM DISSOLVED OXYGEN (mg/L)		12.4	8.3
BACTERIA (E. coli, #/100ml)	#1		<10
	#2		<5
	#3		

**SUMMER THERMAL STRATIFICATION:**

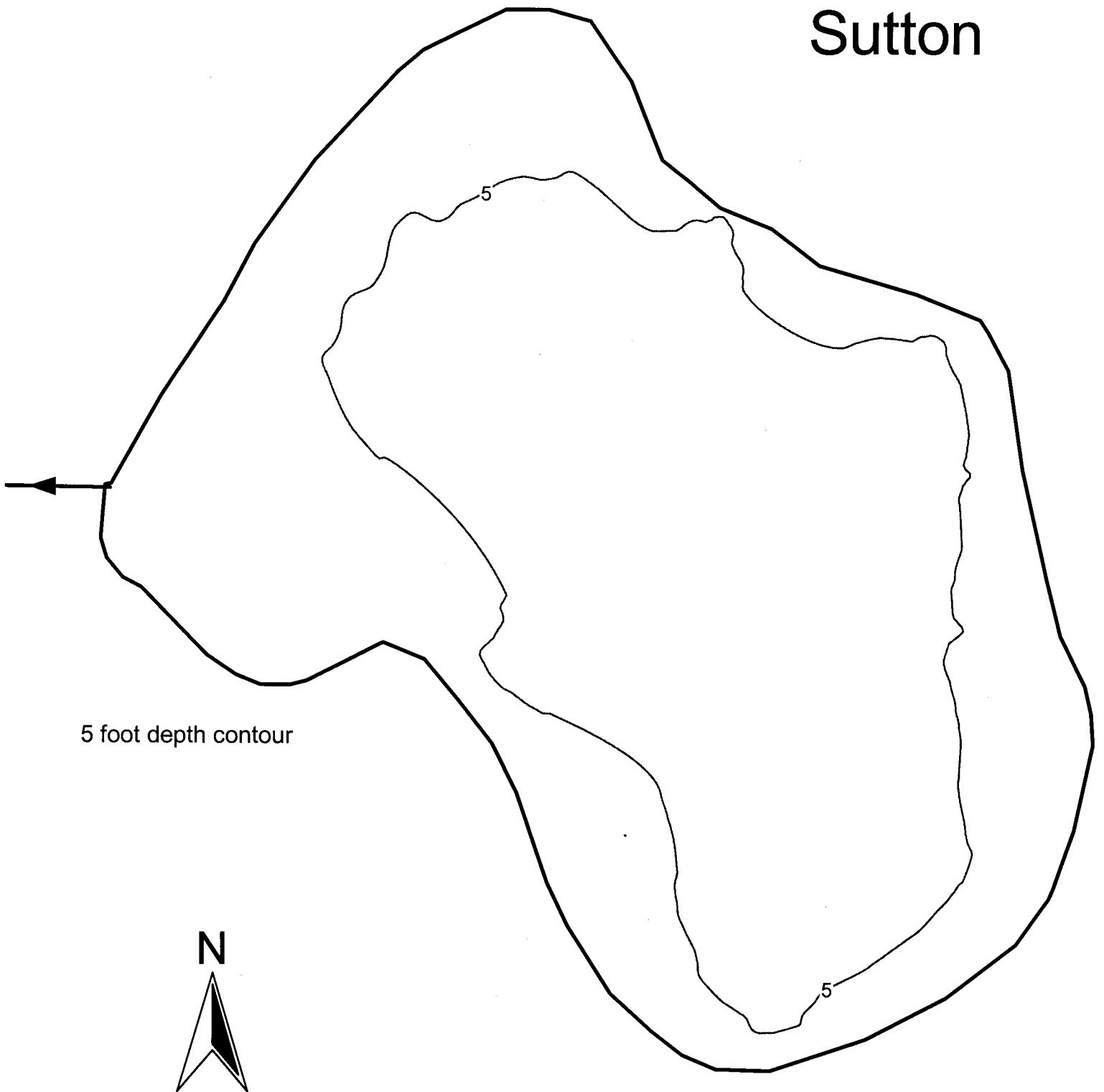
not stratified

Depth of thermocline (m):	None
Hypolimnion volume (m <sup>3</sup> ):	None
Anoxic Volume (m <sup>3</sup> ):	None

<b><u>CHEMICAL:</u></b>		<b>Lake: GILE POND</b> <b>Town: SUTTON</b>				
	<b>13-Jan-04</b>	<b>16-Jun-03</b>				
<b>DEPTH (M)</b>	1.5		1.5			
<b>pH (units)</b>	6.0		6.2			
<b>A.N.C. (Alkalinity)</b>	3.4		3.3			
<b>NITRATE NITROGEN</b>	< 0.05		< 0.05			
<b>TOTAL KJELDHAL NITROGEN</b>	0.60		0.30			
<b>TOTAL PHOSPHORUS</b>	0.009		0.010			
<b>CONDUCTIVITY (umhos/cm)</b>	57.3		58.8			
<b>APPARENT COLOR (CPU)</b>	50					
<b>MAGNESIUM</b>			0.49			
<b>CALCIUM</b>			2.3			
<b>SODIUM</b>			7.1			
<b>POTASSIUM</b>			0.54			
<b>CHLORIDE</b>	10		12			
<b>SULFATE</b>	3		2			
<b>TN : TP</b>	69		33			
<b>CALCITE SATURATION INDEX</b>						
All results in mg/L unless indicated otherwise						
<b><u>TROPHIC CLASSIFICATION: 2003</u></b>						
	<b>D.O.</b>	<b>S.D.</b>	<b>PLANT</b>	<b>CHL</b>	<b>TOTAL</b>	<b>CLASS</b>
	**	2	4	0	6	MESO
<b><u>COMMENTS:</u></b>  1. Previously surveyed in 1980. Borderline meso-eutrophic in both years.  2. An adequate but unimproved and difficult to find launch site was located off Gile Pond Road; limited parking. Another access with more parking available was located on the main road but was suitable for canoes only.  3. Mostly undeveloped shoreline – one house present.  4. Tea colored, moderately acidic pond.						

# Gile Pond

## Sutton



## FIELD DATA SHEET

**LAKE:** GILE POND

**TOWN:** SUTTON

**DATE:** 6/16/03

**WEATHER:** Sunny with light breeze; 70s

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**SECCHI DEPTH (m) :** 2.7 VOB

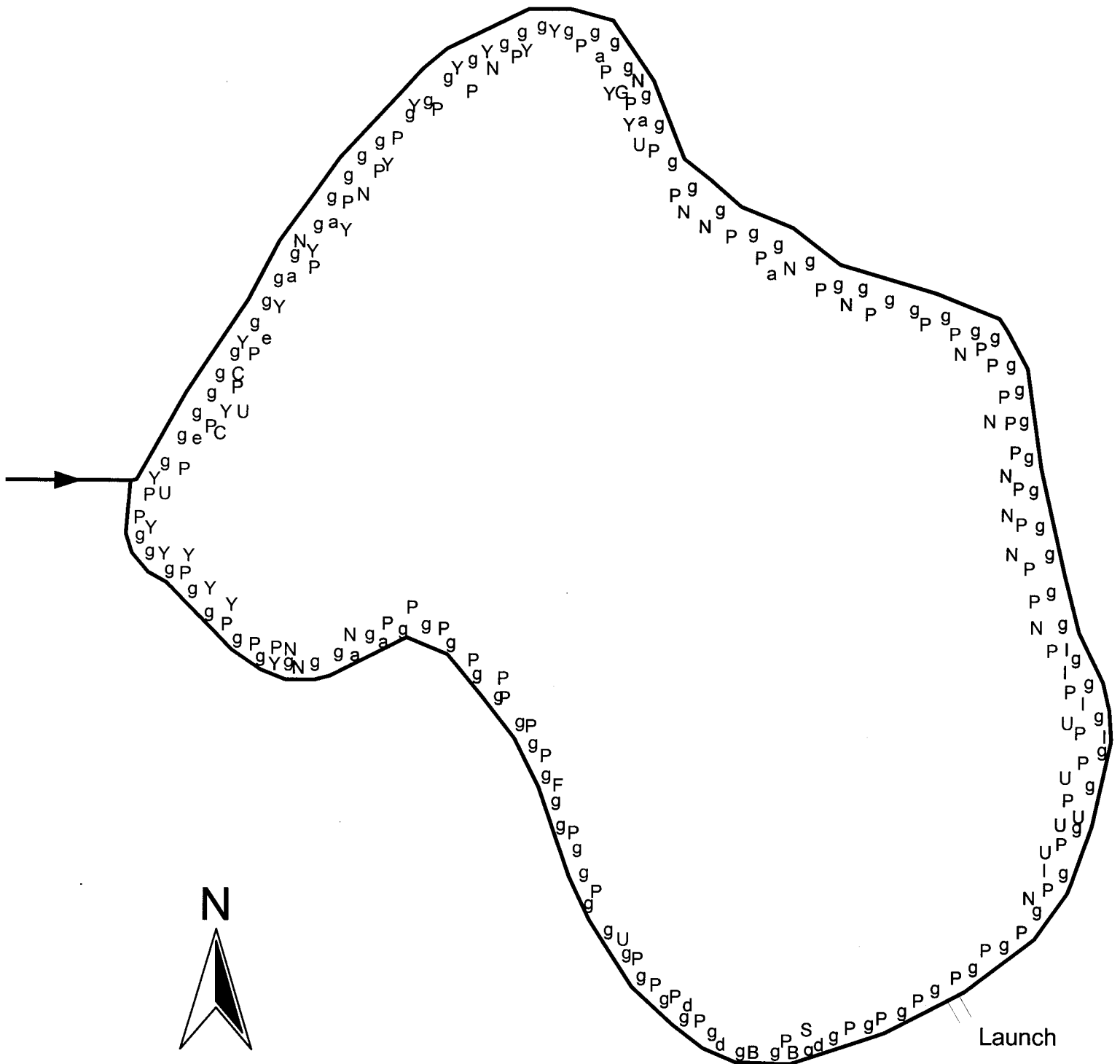
**COMMENTS:**

**BOTTOM DEPTH (m) :** 2.7

**TIME:** 1100

# Gile Pond

## Sutton



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